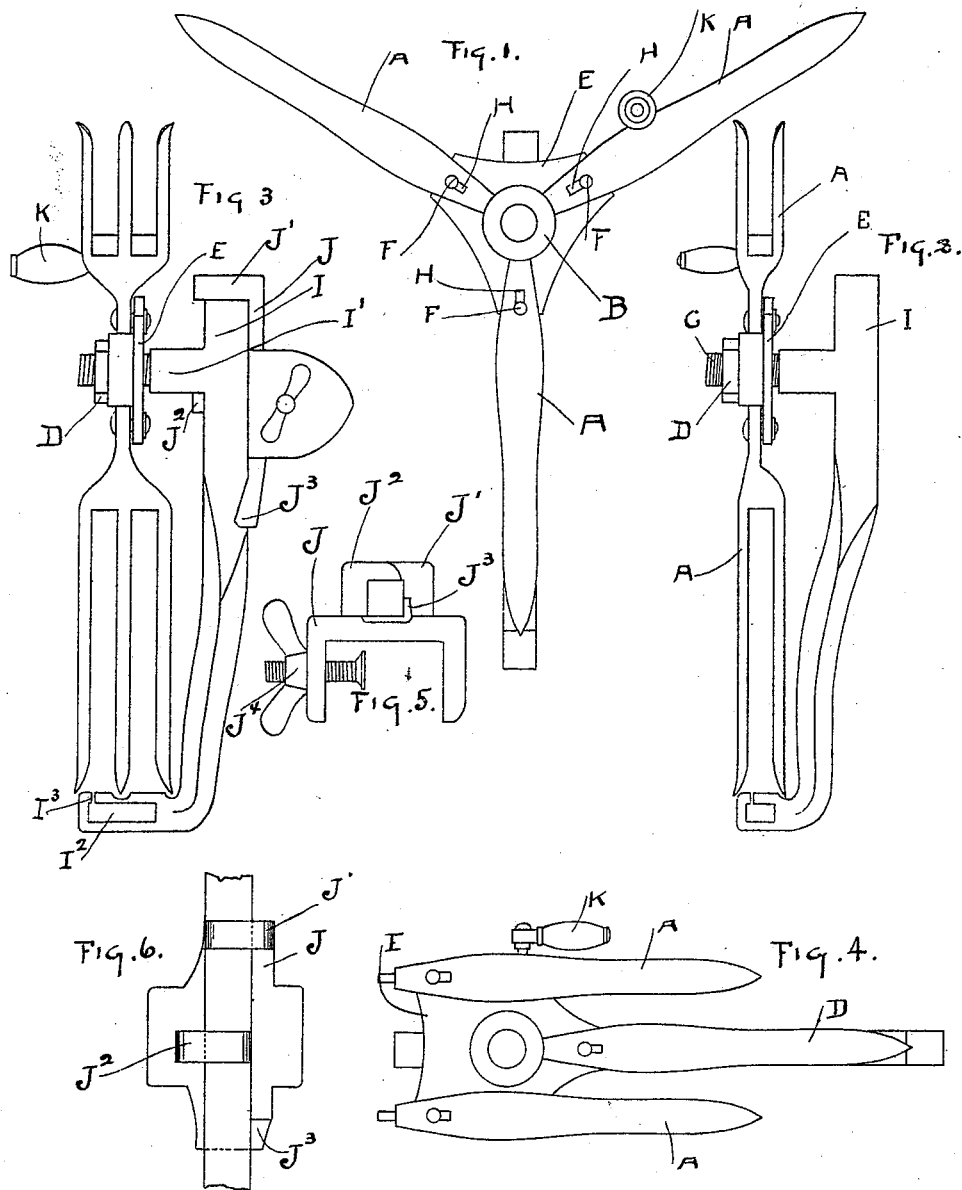


(No Model.)

F. C. KENDRICK.  
TAPE REEL.

No. 421,835.

Patented Feb. 18, 1890.



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# UNITED STATES PATENT OFFICE.

FRANK C. KENDRICK, OF JEFFERSON COUNTY, COLORADO.

## TAPE-REEL.

SPECIFICATION forming part of Letters Patent No. 421,835, dated February 18, 1890.

Application filed March 6, 1889. Renewed January 28, 1890. Serial No. 338,426. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK C. KENDRICK, a citizen of the United States, residing in the county of Jefferson, in the State of Colorado, have invented a new and useful Improvement in Tape-Reels, of which the following is a specification, reference being had therein to the accompanying drawings, in which like letters refer to like parts in the several views.

The object of my improvement is to provide a means of winding steel tape, now generally used by surveyors in running lines instead of a chain.

In the drawings, Figure 1 is a side elevation of the device, showing the three radial arms. Figs. 2 and 3 are front views of the device as it appears to the operator when held in position for use. In Fig. 2 the arms are shown with two prongs, while in Fig. 3 they have three prongs. In Fig. 3 there is a clamp attached to the hand-piece, while in Fig. 2 this attachment is not shown. Fig. 4 shows the device closed, its position when not in use. Fig. 5 shows a clamp, which may be fastened to the hand-piece and attached to a suitable support. Fig. 6 is an inside view showing the clamp in combination with the hand-piece. In Fig. 3 a front view of this clamp is shown.

In the drawings, let A A A designate the three radial arms projecting from a drum B, which rotates upon an axle C. The drum is held in position upon its axle by a suitable burr D. Drum B is provided with suitable sockets for the reception of arms A, the inner extremity of these arms being provided with tail-pieces taking in the sockets of the drum. The drum is also provided with a suitable flange E, to which arms A are attached by means of pivots F. Arms A are provided with slots H, through which pivots F pass. Two of the arms are loosely pivoted to the flange E, while the third is firmly attached, so that when the reel is not in use two of the arms may be drawn from their sockets in the drum, the slots H being of sufficient length for that purpose, after which the two loose arms are folded toward the stationary one, when the parts are in the position shown in Fig. 4, occupying very little space, and therefore very easily carried. The tension of the tape holds the loose arms securely within the drum when the tape is on the reel.

Set-screws may be used in place of pivots F, if desired.

I is a hand-piece provided with a branch I' near the top, extending at right angles to the main part. Branch I' terminates in axle C. The lower part of hand-piece I terminates in a guide I<sup>2</sup>, immediately beneath arms A as they revolve. This guide is provided with a narrow slot I<sup>3</sup>, as shown. The tape enters the guide edgewise through this slot.

J is a clamp provided with hooks J' J<sup>2</sup> and lug J<sup>3</sup>, by means of which the clamp is held securely upon the hand-piece. Hook J' extends from the main part of the clamp across the hand-piece in front and also on the inside, as shown in Figs. 3 and 6. Hook J<sup>2</sup> extends across the hand-piece on the rear side and also upon the inside, as shown in the same figures. Branch I' of the hand-piece rests upon hooks J<sup>2</sup>, as shown in Fig. 3. Lug J<sup>3</sup> extends part way across the hand-piece on the front side, as shown in Fig. 3.

The thumb-screw J<sup>4</sup> works in one jaw of the clamp, by means of which screw the clamp may be made fast to any suitable support resting upon the ground. The weight of the reel resting upon hook J<sup>2</sup> of the clamp holds the reel firmly in position, as will be readily observed. The clamp is removed from the hand-piece by moving it downward thereon until lug J<sup>3</sup> is released by virtue of the inner curve of the hand-piece.

K is a short lever hinged to one of the arms A, by means of which the arms are turned while winding the tape. When not in use, this lever occupies the position shown in Fig. 4.

In the use of my improved device the hand-piece may be grasped by one hand and the arms turned by the other hand, the tape passing through the guide I<sup>2</sup> as it is wound up; or, where there is so much tape that holding the reel in the hand would be tiresome, the clamp J is used, being made fast to any suitable support resting upon the ground, as before described.

The prongs forming arms A may be any suitable distance apart to correspond with the width of the tape used, and these arms may consist of two or three prongs, according to the length of the tape.

In the use of the reel with the three-pronged

arms, as soon as one space between the prongs is filled with tape the tape is guided into the other space and wound up in the same manner, care being taken to hold the reel in such a position that the tape will pass through that part of the guide directly beneath the space to be filled.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a tape-reel, the combination of a revolving drum B, provided with a flange E and forked radial arms A, two or more of which have tail-pieces taking in sockets of the drum and are pivoted through slots to the flange, substantially as set forth.

2. In a tape-reel, the combination of a revolving drum provided with a flange E, forked radial arms A, having slots H, pivots passing through such slots and pivotally securing the arms to the flange, a hand-piece I, provided with branch I' and a guide I<sup>2</sup>, substantially as set forth.

3. In a tape-reel, the combination of a rotatable drum having a flange E, arms A, ad-

justably pivoted to the flange by pivots passing through slots H in the same, a hand-piece I, forming an axle for the drum and a guide for the tape, and means, substantially as described, attached to the hand-piece for securing the reel to any suitable support, substantially as described.

4. The combination, with a tape-reel, of a hand-piece I, forming an axle for the drum and a guide for the tape, and a clamp J, having hooks J' J<sup>2</sup> and lug J<sup>3</sup>, by which the clamp is secured to the hand-piece, substantially as set forth.

5. In a tape-reel, the combination of a revolving drum B, provided with a flange E, and forked radial arms, two or more of which are provided with slots, through which they are pivoted to the flange that they may be folded down when not in use, substantially as set forth.

FRANK C. KENDRICK.

In presence of—

ISHAM R. HOWZE,  
FR. HAMBURGER.